

### Problem 1:

```
1  USE AdventureWorks2019;  
2  SELECT MONTH(HireDate) as Month_Number, count(MONTH(HireDate)) as Number_of_Employees_Hired  
3  FROM [AdventureWorks2019].[HumanResources].Employee  
4  GROUP BY MONTH(HireDate)  
5  
6  
7  
8  
9  
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12
```

#### Results Messages

	Month_Number ▼	Number_of_Employees_Hired ▼
1	1	85
2	2	78
3	3	26
4	4	1
5	5	14
6	6	1
7	9	1
8	11	1
9	12	83

## Problem 2.

Run Cancel Disconnect Change Connection AdventureWorks2019

```
12
13
14 SELECT D.Name as Dept_Name, YEAR(HireDate) as year, Count(*) as number_of_employees_hired
15 from [AdventureWorks2019].[HumanResources].Department as D
16 join [AdventureWorks2019].[HumanResources].EmployeeDepartmentHistory as Edh on D.DepartmentID=EDH.DepartmentID
17 join [AdventureWorks2019].[HumanResources].Employee as E on (EDH.BusinessEntityID=E.BusinessEntityID )
18 where Edh.StartDate=E.HireDate
19 group by D.Name, YEAR(HireDate)
20 order by D.Name
21
22
23
```

Results Messages

	Dept_Name	year	number_of_employees_hired
1	Document Control	2008	1
2	Document Control	2009	4
3	Engineering	2007	2
4	Engineering	2008	3
5	Engineering	2010	1
6	Engineering	2011	1
7	Executive	2009	1
8	Facilities and Maintenance	2008	1
9	Facilities and Maintenance	2009	2
10	Facilities and Maintenance	2010	4
11	Finance	2008	2
12	Finance	2009	9
13	Human Resources	2008	3
14	Human Resources	2009	3

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Problem 3.

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```
select P.FirstName, CR.Name
from [Person].Person as P
join [Person].BusinessEntity as BE on P.BusinessEntityID = BE.BusinessEntityID
join [Person].BusinessEntityAddress as BEA on BEA.BusinessEntityID = BE.BusinessEntityID
join [Person].Address as A on BEA.AddressID = A.AddressID
join [Person].StateProvince as SP on SP.StateProvinceID = A.StateProvinceID
join [Person].CountryRegion as CR on SP.CountryRegionCode = CR.CountryRegionCode
where P.FirstName like 'S%'
```

ResultsMessages

	FirstName	Name
1	Sydney	Canada
2	Sydney	Canada
3	Sydney	Canada
4	Summer	Canada
5	Stephanie	Canada
6	Stephanie	Canada
7	Stephanie	Canada
8	Stephanie	Canada
9	Stephanie	Canada
10	Stephanie	Canada
11	Stephanie	Canada
12	Stephanie	Canada
13	Stephanie	Canada
14	Stephanie	Canada

#### Problem 4.

Run Cancel Disconnect Change Connection AdventureWorks2019

```
34
35 select P.FirstName, E.JobTitle, E.OrganizationLevel, number_of_employees
36 from [HumanResources].Employee as E join [Person].person as P on E.BusinessEntityID = P.BusinessEntityID
37 join (select OrganizationLevel, count(*) as number_of_employees
38 from [HumanResources].Employee
39 group BY OrganizationLevel) as T on E.OrganizationLevel = T.OrganizationLevel-1
40
```

Results Messages

	FirstName	JobTitle	OrganizationLevel	number_of_employees
1	Terri	Vice President of Engineering	1	27
2	David	Marketing Manager	1	27
3	James	Vice President of Production	1	27
4	Laura	Chief Financial Officer	1	27
5	Jean	Information Services Manager	1	27
6	Brian	Vice President of Sales	1	27
7	Roberto	Engineering Manager	2	66
8	Kevin	Marketing Assistant	2	66
9	John	Marketing Specialist	2	66
10	Mary	Marketing Assistant	2	66
11	Wanida	Marketing Assistant	2	66
12	Terry	Marketing Specialist	2	66
13	Sariya	Marketing Specialist	2	66
14	Mary	Marketing Specialist	2	66

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